4.5 Treaty Indian Ceremonial and Subsistence Salmon Uses

This subsection analyzes the potential effects of the Puget Sound Chinook Harvest Resource Management Plan (the Proposed Action) or alternatives on the 17 treaty tribes that conduct ongoing treaty-based fishing activities within the Puget Sound Action Area, and the federally-recognized Snoqualmie and Samish tribes. The effects of the Proposed Action or alternatives on ceremonial and subsistence resource availability, access, and competition are considered in the context of the measurement guidelines described below.

Measurement Guidelines

In order to measure the degree of potential effect of the Proposed Action or alternatives, measurement guidelines are defined here, focusing on those factors that could affect tribal ceremonial and subsistence fishing.

Direct ceremonial and subsistence effects (occurring at the same time and place as the Proposed Action or alternatives) are predicated on changes in the availability of, access to, or competition for ceremonial and subsistence resources. Occurrences that could affect availability of fish resources to ceremonial and subsistence users include changes in resource abundance. Occurrences that could affect access to ceremonial and subsistence resources include regulatory barriers. Competition could increase from overall fishing effort being confined into a limited area that coincides with traditional tribal harvest areas.

In the context of the Proposed Action and alternatives evaluated in this Environmental Impact Statement, indirect ceremonial and subsistence effects (caused by the action but later in time or further removed in distance, but still reasonably foreseeable) include harvester responses to the direct effects (e.g., increased effort, costs and/or risk, or inability to go to traditional harvest places); a loss, reduction or increase of traditional food; effects on culturally significant activities (e.g., traditional harvest practices, participation or production; processing; distribution and sharing within and between tribes; ceremonial practices; transfer of knowledge/transmission of culture; satisfaction of eating traditional food/cultural preferences); and cultural identity.

For ceremonial and subsistence fishing, the following measurement guidelines are used, based on potential direct and indirect ceremonial and subsistence effects:

No Effect: No effect on availability of, access to, or competition for traditional ceremonial and subsistence resources.

- Would not affect key ceremonial and subsistence species (as measured by harvest effort, harvests, or cultural importance)
- Would not occur in an important use area for key ceremonial and subsistence resources
- Would be localized and represent a negligible geographic area relative to other areas of ceremonial and subsistence resource availability
- Would not result in a loss or reduction of traditional food
- Would not affect culturally significant activities
- Would not be measurable and/or expected, or would be of such a rare occurrence that it would be impossible to measure or detect potential effects.

Low: Small and infrequent effect on availability of, access to, or competition for traditional ceremonial and subsistence resources.

- Would not affect key ceremonial and subsistence species (as measured by harvest effort, harvests, or cultural importance)
- Would not occur in an important use area for key ceremonial and subsistence resources
- Would be localized and represent a small geographic area relative to other areas of ceremonial and subsistence resource availability
- Would result in a small and infrequent reduction of traditional foods
- Would affect culturally significant activities infrequently
- Would be measurable, but of small amount or infrequent occurrence
- Would not affect the overall pattern of ceremonial and subsistence uses.

Moderate: Moderate (e.g., within reasonable limits; medium, not excessive or extreme) effect on availability of, access to, or competition for traditional ceremonial and subsistence resources.

- Would affect key ceremonial and subsistence species (as measured by harvest effort, harvests or cultural importance)
- Would occur in an important use area for key ceremonial and subsistence resources
- Would represent a medium geographic area relative to other areas of ceremonial and subsistence resource availability
- Would result in a minor loss of traditional foods
- Would result in detectable effects on culturally significant activities
- Would be measurable at some level between low and substantial

- Could affect individual ceremonial and subsistence users, groups of users and/or the overall pattern of ceremonial and subsistence uses.

Substantial: Substantial (e.g., considerable in importance, value, degree, amount, or extent) effect on availability of, access to, or competition for traditional ceremonial and subsistence resources.

- Would occur frequently
- Would affect key ceremonial and subsistence species (as measured by harvest effort, harvests, or cultural importance)
- Would occur in an important use area for key ceremonial and subsistence resources
- Would represent a large geographic area relative to other areas of ceremonial and subsistence resource availability
- Would result in a measurable loss of traditional foods
- Would measurably affect culturally significant activities
- Would be measurable and/or expected
- Would substantially affect individual ceremonial and subsistence users, groups of users and/or the overall pattern of ceremonial and subsistence uses by communities.

4.5.1 Alternative 1 – Proposed Action/Status Quo

Alternative 1 would implement the 2003 Puget Sound Chinook Harvest Resource Management Plan, a harvest management framework similar to that currently used by state and tribal co-managers within the action area since the year 2000. Under this alternative, all marine and freshwater areas currently fished would remain open to tribal fishers as long as the abundance of salmon populations remains sufficiently high to allow a harvestable surplus, and subject to in-season management to further constrain harvest of listed chinook salmon. The amount of fishing would vary from year to year depending on population status, but this alternative would allow some level of tribal fishing for ceremonial and subsistence purposes in all areas currently fished for coho, sockeye, pink, chum salmon, and steelhead.

Under the Proposed Action, tribal fishers would continue to have ceremonial and subsistence access to harvestable surpluses of all species, including chinook-directed harvests in terminal areas benefited by hatchery production. The Proposed Action would provide management flexibility that would allow tribes access to resources under variable abundance of chinook and other salmon species. Implementation of the Proposed Action would allow for continued ceremonial and subsistence harvests similar in size to the previous decade. However, Alternative 1 would impose considerable restriction on access to chinook salmon due to conservation measures that tribes voluntarily impose upon themselves.

Although Alternative 1 would be the most flexible of the four alternatives considered, and would provide tribes the greatest opportunity to harvest salmon for subsistence purposes, it would still represent a reduction in access and use from historical times. Overall, the Proposed Action would be a continuation of the status quo, and would have no direct adverse effect on tribal ceremonial and subsistence fishing within the action area because tribal fishing access would continue to be provided, and resource availability and competition for resources would not be affected.

This Environmental Impact Statement focuses on harvest levels predicted when Puget Sound chinook abundance and southern U.S. (SUS) fisheries are at the 2003 level, and intercepting Canadian/Alaskan fisheries are at the maximum allowed under the Pacific Salmon Treaty (Scenario B). Despite the variability in expected total harvest associated with lower abundance or northern fishery interceptions, it should be assumed that ceremonial and subsistence harvest would remain relatively constant for different northern fishery and abundance conditions, due to the high priority that tribal fishery managers place on meeting these essential requirements of tribal members and communities. In other words, it would be expected that commercial sales would be reduced, if necessary, to meet these constant subsistence requirements.

4.5.2 Alternative 2 – Escapement Goal Management at the Management Unit Level

The direct effect of Alternative 2 would be to eliminate tribal harvest opportunity in all marine salmon areas of Puget Sound, and to close or severely restrict opportunity in the Nooksack and Skagit Rivers. Because many tribes depend on marine-area fisheries for a significant part or all of their ceremonial and subsistence harvest, implementation of Alternative 2 would substantially reduce the availability of salmon for ceremonial and subsistence use,compared to availability under Alternative 1. All species of salmon have equal cultural importance to tribes, are key ceremonial and subsistence resources, and the different species are harvested depending upon individual and tribal preferences for ceremonial and personal or family consumption. For some tribes, species of salmon or steelhead that would be available under Alternative 1 would no longer be available for harvest with Alternative 2, because they either would not be produced in streams within tribal usual and accustomed fishing areas, or they would be produced at such low abundance that harvest would not be allowed.

Total salmon harvest in Puget Sound would be predicted to fall 78 percent with Alternative 2 (Scenario B), relative to Alternative 1. Total harvest of would fall 36 percent for chinook salmon, 60 percent for coho, 100 percent for sockeye, 85 percent for pink salmon, and 68 percent for chum. Within regions, total salmon harvest is predicted to decline 96 percent in the Strait of Juan de Fuca, 90 percent in North Sound, 58 percent in South Sound, and 31 percent in Hood Canal (see Table 4.7.8 in Subsection 4.7,

Environmental Justice). The change in the number of salmon used for subsistence purposes cannot be quantified precisely from this comparison of total harvest, but it suggests that tribal access to salmon for subsistence purposes would be substantially reduced in all regions, and that access to chinook and sockeye salmon in particular would be precluded in some regions.

Subsistence and ceremonial harvest is afforded highest priority by the tribes, and therefore is likely to be more constant than commercial harvest as abundance or access varies. However, the severe constraint of marine fishing opportunity envisioned under Alternative 2, would likely have substantial negative impact on the economic well-being of tribal members and communities, thereby increasing the need for subsistence harvest.

Under Alternative 2, harvesters would be unable to fish in all marine areas within Puget Sound, or in major freshwater rivers. Consequently, tribal fishing in remaining freshwater areas would increase compared to levels under Alternative 1. Because certain freshwater areas would remain open, this alternative could result in increased harvester competition in those areas as fishers seek salmon. Competition would be likely to increase among tribes that share common usual and accustomed freshwater fishing areas, and with recreational fishers that may seek increased fishing opportunities in freshwater areas.

4.5.3 Alternative 3 – Escapement Goal Management at the Population Level with Terminal Fisheries Only.

Like Alternative 2, the direct effect of Alternative 3 would be to eliminate tribal harvest opportunity in all marine areas. However, Alternative 3 would further constrain tribal harvest opportunity in freshwater areas because regulating fishing to achieve population-specific escapement goals in the Stillaguamish and Snohomish Rivers would preclude access to chinook, pink, and coho salmon that would be available under Alternative 2. Opportunity in other freshwater areas would persist. Because many tribes depend on marine-area fisheries for a significant part or all of their ceremonial and subsistence harvest, implementation of Alternative 3 would substantially reduce the availability of salmon for ceremonial and subsistence use compared to availability under Alternative 1.

Total salmon harvest that would likely occur under Alternative 3 (Scenario B) is predicted to be 84 percent lower than under Alternative 1. Reductions in the total harvest of individual species would be slightly greater for chinook, coho, and pink salmon, and similar for sockeye, chum, and steelhead, relative to Alternative 2 (see Table 4.7.10 in Subsection 4.7, Environmental Justice). Reductions in total regional salmon harvest would be similar to Alternative 2, except in the North Sound region, where it is predicted that further reductions in chinook, coho, and pink salmon harvest would reduce

total harvest by 99 percent. These negative effects are due to the preclusion of fishing in marine areas, where many tribes harvest a significant proportion, if not the majority, of their non-commercial salmon.

The actual reduction in the number of salmon that would be used for subsistence purposes under Alternative 3 cannot be precisely quantified. However, the preclusion of harvest in all marine areas, and in the Stillaguamish and Snohomish systems, would create substantial additional reduction in the availability of chinook, coho, and pink salmon in those areas, with particular impact to the tribes that fish in those areas. As noted for Alternative 2, as commercial harvest opportunity is reduced, the number of salmon required for subsistence purposes is likely to increase, as income and jobs are lost.

4.5.4 Alternative 4 – No Action/No Authorized Take

Under Alternative 4, all marine-area fisheries and most freshwater fisheries within the action area would be closed except for certain late-season freshwater fisheries for chum salmon (December – January) and steelhead (December – March). Total salmon harvest is predicted to decline 98 percent with Alternative 4, relative to Alternative 1. Fall chum harvest would be limited to the last two weeks of their spawning period, except in the Nisqually River, where a late-run of chum enters in December and January. Total chum salmon harvest is predicted to decline 92 percent, relative to Alternative 1, and would be effectively eliminated in the Strait of Juan de Fuca and Hood Canal regions (see Table 4.7.12 in Subsection 4.7, Environmental Justice). For those tribes that do not fish freshwater areas for chum salmon and steelhead, all fisheries would be closed.

The direct effect of Alternative 4 would be to substantially reduce availability and access to all riverine and marine salmon compared to Alternative 1. Access to chinook, coho, sockeye and pink salmon would be eliminated under Alternative 4, and only a few areas would remain open for fall chum salmon harvests (e.g., limited chum harvest in the Nooksack, Skagit, Green, Skokomish, and Puyallup Rivers; and unimpeded late-season chum harvest in the Nisqually River). As described in Subsection 3.5, Treaty Indian Ceremonial and Subsistence Salmon Uses – Affected Environment, all species of salmon are key ceremonial and subsistence resources (as measured by cultural importance), and different species are harvested depending upon individual and tribal preferences for ceremonial and personal or family consumption.

The areas closed to salmon fishing by Alternative 4 (e.g., the Puget Sound Action Area) are important historic and contemporary tribal harvest areas for ceremonial and subsistence salmon. Tribes rely on both marine and freshwater habitat of the action area for the harvest of ceremonial and subsistence salmon, and one Puget Sound tribe or another fishes the freshwater and marine areas within the Puget

Sound Action Area. For most tribes, the action area encompasses their entire usual and accustomed fishing grounds. The area that would be closed by Alternative 4 represents almost the entire geographic area of salmon availability. For these reasons, Alternative 4 would result in a substantial adverse direct effect on tribal ceremonial and subsistence fishing.

4.5.5 Indirect and Cumulative Impacts

4.5.5.1 Indirect Effects

Indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects resulting from the direct effects on ceremonial and subsistence salmon uses include harvester responses to the direct effects (e.g., increased effort, costs and/or risk, and inability to go to traditional harvest places), the effects on an increase or loss of traditional foods, the effects on culturally significant activities associated with salmon uses (e.g., traditional harvest practices, participation or production; processing; distribution and sharing within and between tribes; ceremonial practices; transfer of knowledge/transmission of culture; satisfaction of eating traditional food/cultural preferences) and effects on cultural identity.

Alternative 1 – Proposed Action/Status Quo

Because the Proposed Action would result in no adverse effects due to reduced availability of or access to salmon aside from the conservation restrictions the tribes have voluntarily imposed upon themselves in consultation with the State of Washington, there would be no adverse indirect effects associated with Alternative 1.

Alternatives 2 or 3 – Escapement Goal Management

Tribal harvesters who rely on marine area fisheries would not be able to fish in their usual and accustomed fishing areas if Alternative 2 or 3 were implemented. Restrictions in several major freshwater rivers would greatly limit access to usual and accustomed fishing areas for those tribes.

With the closure of marine fishing areas and the restrictions on many rivers, implementation of the escapement goal type of management framework would be expected to result in a substantial reduction in the harvest of a traditional food important to Indian culture for tribes relying on those areas for salmon harvest. These tribal harvesters would likely be unable to harvest adequate numbers of salmon for the ceremonial and subsistence purposes described in the Affected Environment. Furthermore, the fishing closures anticipated under Alternatives 2 or 3 would effectively eliminate or significantly reduce culturally significant activities associated with salmon, including participation in traditional harvests; practicing traditional methods of harvesting and processing salmon, including community

smokehouses; formal and informal distribution and sharing salmon within and between tribes; serving salmon for elder's dinners, community-wide dinners, or intertribal traditional dinners; reciprocity and exchanging salmon among kin and community members; sharing and informally distributing salmon – a practice that serves to bind the community in a system relationships and obligations; and gifting of salmon.

As described in the Affected Environment (Subsection 3.5, Treaty Indian Ceremonial and Subsistence Salmon Uses), salmon is an important traditional food that is intimately linked to ceremonial practices. Salmon is served during naming ceremonies, funerals, during one-year memorials after a death, and when students are honored. To tribes, a ceremony is incomplete if salmon is not present. With most salmon fishing opportunity precluded, conduct of first salmon ceremonies according to ancient tradition would be precluded in most areas. In addition, the satisfaction of eating traditional foods contributes to the overall well being of Indian people. Salmon is a favored food, and tribal members have developed preferences for various species as well as salmon caught in different waters (e.g., marine versus fresh or different rivers) or from different sections of a river. Alternatives 2 or 3 would result in a substantial loss of traditional foods for consumption by the Puget Sound tribes.

As described in the Affected Environment (Subsection 3.5), participation in a culture is at the core of cultural continuity and survival. Furthermore, in order to transfer cultural knowledge between generations, it is necessary for community members to participate in cultural practices. Harvesting, processing, preparing, and eating salmon in culturally-prescribed ways are important tribal activities for the transmission of a salmon fishing culture. Elders teach young people skills, and fishing is part of one's tribal education. The continual participation in culturally-significant activities serves to reinforce cultural values and ensure they are transmitted over time. For Indians within the action area, fishing for salmon has been for centuries, and continues to be, an integral part of tribal life. If access to harvesting salmon from marine waters were prohibited, as anticipated under Alternatives 2 or 3, Indian people within the action area who rely on marine salmon harvests would be subjected to being separated from a part of their cultural core, their cultural identity. Alternative 2 or 3 would eliminate marine salmon fishing and limit freshwater fishing to terminal fisheries. Without salmon fishing, associated cultural activities could not be practiced. Implementation of Alternative 2 or 3 would strike at the core of the cultural identity of the tribes within the action area who rely on salmon caught in marine areas.

Therefore, Alternative 2 or 3 would result in a substantial adverse indirect effect on tribal ceremonial and subsistence salmon fishing and use as compared with Alternative 1, because either would

substantially affect individual ceremonial and subsistence users, groups of users, and the overall pattern of ceremonial and subsistence uses by communities.

Alternative 4 – No Action/No Authorized Take

Closure of salmon fishing in Puget Sound to the extent envisioned under Alternative 4, would, as stated above, essentially preclude exercise of Treaty fishing rights by the affected tribes. Salmon would continue to be available to tribal members from sources outside of Puget Sound and from conventional retail markets, but this acquisition would not substitute for salmon harvested locally, by local tribal members, from within their usual fishing areas. Obtaining salmon for ceremonial and subsistence purposes is inextricably associated with the practice of harvest according to ancient custom, on ancestral fishing grounds. Obtaining salmon from non-local sources would, in addition, necessarily incur relatively high cost and inconvenience, and could not, for most tribal people, be regarded as subsistence use.

With the closure of marine and freshwater fishing areas and access only to limited harvest of fall and winter chum and steelhead, Alternative 4would result in an abrupt and substantial reduction in the harvest of a traditional food important to Indian culture. To an even greater extent than Alternative 2 or 3, Alternative 4 would result in tribal harvesters being unable to harvest adequate numbers of salmon for the ceremonial and subsistence purposes described in Subsection 3.5 (Treaty Indian Ceremonial and Subsistence Salmon Uses – Affected Environment). Also to a greater extent than Alternative 2 or 3, fishing closures in Alternative 4 would affect a wide pattern of culturally-significant activities associated with salmon (including traditional harvest practices, participation in production, processing, distribution and sharing, ceremonial practices, transfer of culture, satisfaction of eating traditional foods, and cultural identity). All of the indirect effects described with Alternative 2 or 3 would apply to Alternative 4, and would be exacerbated by the near-total closure of tribal access to salmon within the action area.

Therefore, Alternative 4 would result in a substantial adverse indirect effect on tribal ceremonial and subsistence salmon fishing and uses compared to Alternative 1, because it would substantially affect individual ceremonial and subsistence users, groups of users and the overall pattern of ceremonial and subsistence uses by communities.

4.5.5.2 Cumulative Impacts

There are no predictable indirect effects on tribal use of salmon for subsistence or ceremonial purposes by Puget Sound tribes, or other tribes which would not be directly affected by this action. Other than

U.S. v. Washington and its various sub-proceedings, including its mandate for the Puget Sound Salmon and Steelhead Management Plan, there are no other relevant laws or policies that affect subsistence or ceremonial use by Puget Sound or other tribes. Therefore, there are no indirect or cumulative effects to analyze for this element of the Environmental Impact Statement.